



CITY OF HELENA BUILDING DIVISION



"BITS"

Miscellaneous "BITS" of information that may be of interest to
the City of Helena Contractors and Design Professionals
April 2018

SECTION R314 – SMOKE ALARMS & SECTION R315 – CARBON MONOXIDE ALARMS

In accordance with 2012 edition of the International Residential Code.



SMOKE ALARMS

Section R314 requires smoke alarms to be installed in all new and existing residential projects undergoing alterations, repairs or additions requiring permits.

- Smoke alarms shall be listed and labeled in accordance with UL 217 and installed in accordance with the code and manufacturer instructions. (R314.1)
- Household fire alarm systems may be installed where in compliance with NFPA 72. (R314.2)
- Smoke alarms shall be installed in the following locations:
 - In each sleeping room;
 - Outside each separate sleeping area in the immediate vicinity of the bedrooms; and
 - On each additional story of the dwelling including basements and habitable attics.
 - In split level dwellings with out an intervening door between adjacent levels, a smoke alarm installed on the upper level will satisfy the placement, provide the lower level is less than one full story below the upper level. (R314.3)
- When alterations, repairs or additions requiring a permit occur, or when one or more sleeping rooms are added or created in existing dwellings, the individual dwelling unit shall be equipped with smoke alarm located as required for new dwellings. (R314.3.1)
 - Installation of smoke detectors would not be required where the work involves only the exterior of the building, such as replacement of roofing or siding, or the addition or replacement of windows or doors, or the addition of a porch or deck and where the work involves only alterations or repairs of plumbing or mechanical systems.
- Smoke alarms shall receive their primary power from the building wiring system. Wiring shall be permanent and without a disconnecting switch other than over current protection breaker. Smoke alarms shall also have battery back-up capabilities. (R314.4)
 - Hard wiring of smoke alarms in existing areas will not be required where the alteration or repairs do not require the removal of interior wall or ceiling finishes exposing the structure unless, there is an attic, crawlspace or basement available which could provide access for hard wiring without the removal of finishes, smoke detectors shall be hardwired same as for new.
- Where more than one smoke alarm is required, the alarms shall be interconnected in such a manner that the actuation of one alarm will activate all the alarms. Where listed wireless alarms are installed, interconnection is also required. (R314.5)
 - Interconnection of smoke alarms in existing areas will not be required under the same circumstances as for hard wiring in existing buildings.

(Continued - Carbon Monoxide Alarms)



CARBON MONOXIDE ALARMS

Section R315 requires carbon monoxide alarms to be installed in all new dwellings and in existing dwellings undergoing alterations, repairs or additions requiring permits where fuel-fired appliances are installed or where there is an attached garage. (R315.1 & R315.3)

- Carbon monoxide alarms shall be installed in the following locations:
 - Outside each separate sleeping area in the immediate vicinity of the bedrooms (R315.1);
 - Centrally located on every habitable level of the dwelling and each HVAC zone (NFPA 720); and
 - As required by manufacturer's instructions.
- Carbon monoxide detection systems that include carbon monoxide detectors and audible notifications appliances may be installed where in compliance with NFPA 720 and UL 2075. System shall be monitored by an approved supervising station. (R314.2)
- Single station carbon monoxide alarms shall be listed and labeled in accordance with UL 2034 and installed in accordance with the code and manufacturer instructions. (R315.4)

